

Date: Thursday, 8/24/2006 11:10:19 AM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : BLADE FITTING
Job Number : 28318	
Estimate Number : 12299	
P.O. Number : N/A	Part Number : D3488041
This Issue : 8/24/2006 S.O. No. : N/A	Drawing Number : D3488 / DSK101
Prsht Rev. : NC	Project Number : N/A
First Issue : N/A Type : MACHINED PARTS	Drawing Revision : B / <i>06-03-24</i>
Previous Run : 26838	Material : N/A
Written By : _____	Due Date : 9/6/2006 Qty: 20 Um: Each
Checked & Approved By : _____	
Comment : Est Rev:A New Issue 06-02-28 JLM Est Rev:B As per Rev B 06-03-30 JLM	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	D6103003	alum billet
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 20.0000 Each(s)
 Alluminum Round Billet D6103-003
 Batch: *28336*

2.0	MORI SEIKI	MORI SEIKI CNC LATHE LARGE
-----	------------	----------------------------

RG

Issue 1.0 1987

11 16-09-28

Comment: MORI SEIKI CNC LATHE LARGE

1-Turn as per Dwg DSK 101 & Folio FA625

turn per dwg DSK 101
RG

2-Deburr

Receive & inspect for transit damage 10/4/20

3.0	QC3	INSPECT PARTS AS THEY COME OFF MACHINE
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Comment: INSPECT PARTS AS THEY COME OFF MACHINE

BC / J.G 06/09/21 20

4.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
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Comment: HAAS CNC VERTICAL MACHINING #1

1-Machine as per Folio FA625 & Dwg D3488

2-Deburr

ml 06/09/26 20

5.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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Comment: INSPECT PARTS AS THEY COME OFF MACHINE

ml 06/09/26 20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			
06-09-28	3	THICKNESS DIM ON DETAIL C IS 1.299". Drawing uses for calls for 1.312" Qty 1	PH 06-09-28 QSI 042	The attached report indicates deviation is acceptable and approved by D. Shephard	PH 06-09-28 QSI 042 BG 09-21	2 06-09-28		2 06-09-28

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: ☒ _____ Date: 06/10/19

NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____

Date: Thursday, 8/24/2006 11:10:19 AM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BLADE FITTING

Job Number: 28318

Part Number: D3488041

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC8

SECOND CHECK



Comment: SECOND CHECK

J.G

06/09/29

20

7.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

Y.L

06/10/03 x 20

8.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

Y.L a.m

06/10/13 x 20

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

m/l

06 10 13 x 20

10.0

ALS71032225

INSERT



Comment: Qty.: 4.0000 Each(s)/Unit Total: 80.0000 Each(s)

Pick:

Qty Part Number Description Batch

4 ALS7-1032-225 Insert M19393

a.m 06/10/17

(20)

11.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Install Inserts as per Dwg D3488

a.m 06/10/17

(20)

12.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

FC 06 10 18

(20)

13.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: FP14

FC 06 10 18 20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____

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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BLADE FITTING

Job Number: 28318

Part Number: D3488041

Job Number:



Seq. #:

Machine Or Operation:

Description :

14.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

8/24/10/19

Job Completion



C 206/10/18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____

DART AEROSPACE LTD		Work Order:	28318
Description: Blade Fitting, LH		Part Number:	D3488-1
Inspection Dwg: D3488	Rev: B	Page 1 of 1	

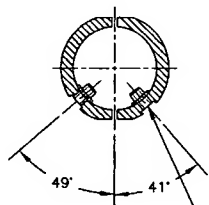
FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.125	+/-0.010	0.127	—			
2.620	+/-0.010	2.619	—			
0.793	+/-0.010	0.794	—			
1.351	+/-0.010	1.341	—			
1.317	+/-0.010	1.319	—			
90°	+/-0.1°	90°	—			
1.802	+/-0.010	1.801	—			
Ø0.508	+0.006/-0.001	Ø0.508	—			
R0.062	+/-0.010	R0.062	—			
1.500	+/-0.010	1.500	—			
8.000	+0.030/-0.000	8.006	—			
11.18	+/-0.030	11.177	—			
Ø0.484	+0.005/-0.001	Ø0.485	—			
1.180	+/-0.010	1.178	—			
3.150	+/-0.010	3.149	—			
3.070	+/-0.010	3.070	—			
0.590	+/-0.010	0.591	—			
0.125	+/-0.010	0.126	—			
1.005	+/-0.010	1.006	—			
3.500	+/-0.010	3.499	—			
Ø0.297	+0.005/-0.000	Ø0.497	—			
Ø0.430	+/-0.010	Ø0.430	—			
0.100	+/-0.010	0.103	—			

Measured by:	JML	Audited by:	En	Prototype Approval:	N/A
Date:	06/09/26	Date:	06/09/26	Date:	N/A

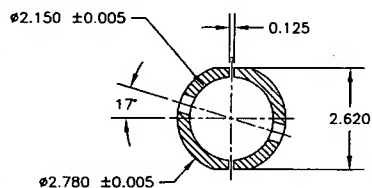
Rev	Date	Change	Revised by	Approved
A	06.03.31	New Issue	KJ/JLM	JML



SECTION B-B

Ø0.297
C'BORE Ø0.430 x 0.100
INSTALL ALS4-1032-225 (OR AKS4-1032-225
OR ALS7-1032-225 OR AKS7-1032-225)
INSERTS AFTER FINISH
(4 PLACES)

4



SECTION A-A

D3488-041/-042 BLADE FITTING ASSEMBLY PARTS LIST

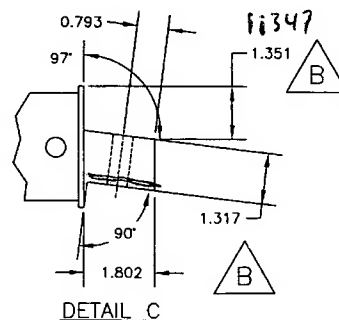
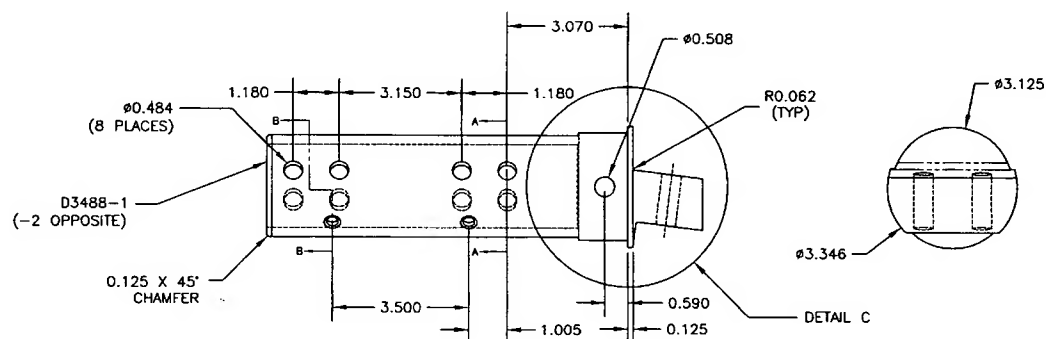
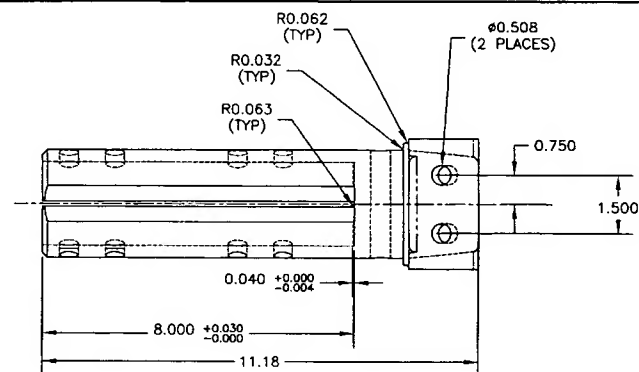
QTY -041	QTY -042	PART NUMBER	DESCRIPTION
X	X	D3488-041	BLADE FITTING ASSEMBLY (LH)
		D3488-042	BLADE FITTING ASSEMBLY (RH)
1		D3488-1	BLADE FITTING (LH)
	1	D3488-2	BLADE FITTING (RH)
4	4	ALS4-1032-225 or AKS4-1032-225 or ALS7-1032-225 or AKS7-1032-225	INSERT

D3488-041/-042 BLADE FITTING

- MATERIAL: MAKE D3488-1/-2 FROM ALUMINUM 7075-T7351 ROUND BAR
PER QQ-A-225/9
(REF. DART MATERIAL SPEC M7075T73R)
- FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1
POWDER COAT WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
- BREAK UNMARKED SHARP EDGES 0.010 TO 0.020
- INSTALL INSERTS AFTER POWDER COAT
- ALL DIMENSIONS ARE IN INCHES
- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

NO. 28318
WORK ORDER

WITHOUT NOTICE
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ENGINEERING
RETURN TO
SHOP COPY



D3488-041 SHOWN (D3488-042 OPPOSITE)

RELEASED
06.03.15
PER OS
ELN #789

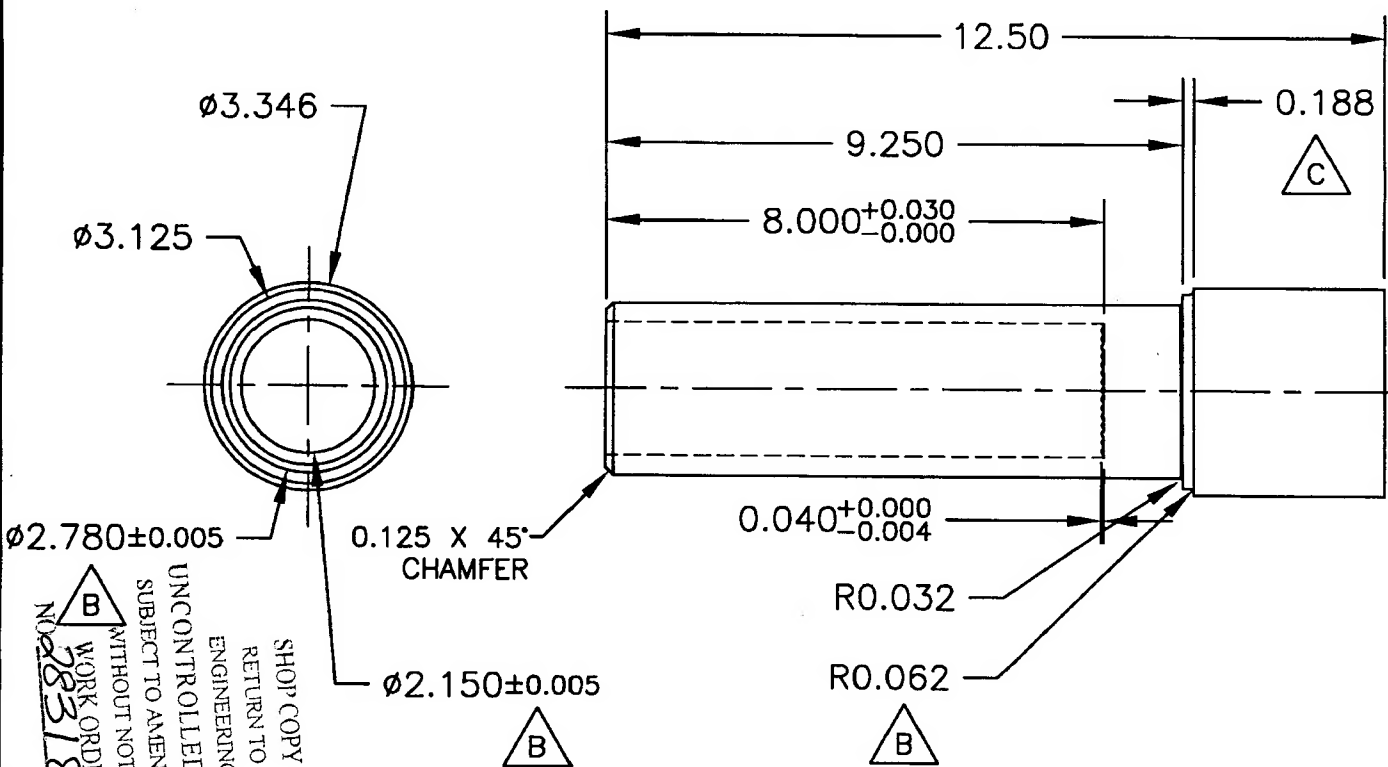
B	06.03.15	CHANGE THICKNESS
A	05.12.20	NEW ISSUE
DESIGN	PH	DART DART AEROSPACE USA, INC. PORT HADLOCK, MA
CHECKED	PH	DRAWING NO. D3488
DATE	06.03.15	TITLE BLADE FITTING
		REV. B SHEET 1 OF 1 SCALE 1:3

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THAT IT IS NOT TO BE USED FOR ANY PURPOSE
OR COPIED OR COMMUNICATED TO ANY OTHER
PERSON WITHOUT WRITTEN PERMISSION FROM
DART AEROSPACE USA, INC.

DART

DESIGN	DRAWN BY	DART AEROSPACE USA, INC.	
PH	PH	PORT HADLOCK, WA	
CHECKED	APPROVED	DRAWING NO.	REV. D
PH	PH	DSK 101	SHEET 1 OF 1
DATE		TITLE	SCALE
06.05.09		D3488-1/-2 TURNING DETAIL	1:3
A	05.12.21	NEW ISSUE	
B	06.03.02	ADD TOLERANCES AND RADIUS	
C	06.04.17	0.188 WAS 0.125	
D	06.05.09	REMOVE DIAMETER FOR CHAMFER	



- 1) MATERIAL: MAKE FROM ALUMINUM 7075-T7351 ROUND BAR PER QQ-A-225/9 (REF. DART MATERIAL SPEC M7075T73R)
- 2) FINISH: NONE
- 3) BREAK UNMARKED SHARP EDGES 0.010 TO 0.020
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 28318
DSK 101

**CERTIFICATE OF CONFORMITY****SOLD TO:**

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, Ont.
K6A 1K7

SHIPPED TO:

same

<u>QUANTITY</u>	<u>PART NUMBER</u>	<u>PART NAME</u>	<u>P.O. NUMBER</u>
20	DSK101	Support as per Dwg DSK101 D6103-003 B 28318	1987
20	DSK101	Support as per Dwg DSK101 D6103-003 B 28319	1987
40	D2968-5	Ring M4130NT3000W500 M102020 W/O 28267B	1987
20 22	D2968-5	Ring M4130NT3000W500 M102020 W/O 28268B	1987
20 22	D3407-5	Ring M174R3000 M18742 W/O 28333	1987

MATERIAL: supplied by DART

We hereby certify that the above parts were made in conformance with applicable drawings.

METEC Metal Technology Inc.

Shirley (Regula) Walz

BC 06-09-21

Vankleek Hill, September 20, 2006